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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,935	08/18/2006	Nicolas Lucas	Serie 6510	2430
65792      7590      05/14/2009 AIR LIQUIDE INTELLECTUAL PROPERTY DEPT. 2700 POST OAK BLVD. SUITE 1800 HOUSTON, TX 77056				
EXAMINER YANG, JIE				
ART UNIT		PAPER NUMBER		
1793				
MAIL DATE		DELIVERY MODE		
05/14/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Advisory Action  
Before the Filing of an Appeal Brief**

**Application No.**

10/589,935

**Applicant(s)**

LUCAS ET AL.

**Examiner**

JIE YANG

**Art Unit**

1793

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 28 April 2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 5 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.  
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_  
13. ☐ Other: \_\_\_\_\_.

/Roy King/  
Supervisory Patent Examiner, Art Unit 1793

/JieYang/

Continuation of 5. Applicant's reply has overcome the following rejection(s): claims 13-23, 25, and 27 under 35 U.S.C. 102 (a) or (b) as anticipated by PG'054; claim 26 under 35 U.S.C. 103(a) as being unpatentable over PG'054; and ODP.

There is no amendment for the claims after final rejection marked 11/24/2009.

This is to acknowledge the receipt of the "Certified copy of foreign priority application"; and "Terminal disclaimers" filed on 4/28/2009. The "Terminal disclaimers" are approved on 5/1/09.

Following the the status of the previous rejections:

The previous rejection of claims 13-23, 25, and 27 under 35 U.S.C. 102 (a) or (b) as anticipated by Allemmand (WO 2004/099453, cited using its English equivalent, PG-pub US2007/0034054, thereafter PG'054) has been withdrawn in view of the "Certified copy of foreign priority application", which has supported the foreign application priority date: Feb. 25, 2004.

The previous rejection of claim 26 under 35 U.S.C. 103(a) as being unpatentable over PG'054 has been withdrawn in view of the "Certified copy of foreign priority application", which has supported the foreign application priority date: Feb. 25, 2004.

The previous rejection of claims 13-23, and 25- on the ground of nonstatutory obviousness type double patenting as being unpatentable over claims 13-33 of copending application No. 10/555313 is withdrawn in view of the applicants' "Terminal disclaimers" filed on 4/28/2009, which are approved on 5/1/09.

The previous rejection of claims 13-23, and 25-27 on the ground of nonstatutory obviousness type double patenting as being unpatentable over claims 31-63 of copending application No. 10/497454 (updated as US 7,462,218 B2) in view of US'122 is withdrawn in view of the applicants' "Terminal disclaimers" filed on 4/28/2009, which are approved on 5/1/09.

Continuation on 11. does NOT place the application in condition for allowance because the previous rejection of claims 13-23 and 25-27 under 35 U.S.C. 103(a) as being unpatentable over Ducrocq (WO 03056044, cited using its English equivalent, PG-pub US 2005/0103159, thereafter PG'159) in view of Meyers et al (US 6,245,122, thereafter, US'122) is still maintained for the reason as stated in the previous office actions marked 11/24/2008 and 3/5/2008.

Regarding the rejection of claims 13-23 and 25-27 under PG'159 in view of US'122, Applicants argued:

Claims 13 (as well as independent claim 27) does more than simply claim the use of setpoints to regulate an aluminum melting process. Claim 13 also requires: 1) the initial regulation of either CO or H<sub>2</sub> (or both) concentration to a first setpoint (C1); 2) during oxidation either keeping the oxidizer constant and modulating the fuel flow or keeping the fuel flow constant and modulating the oxidizer flow; 3) setting a different setpoint (C2) to decrease CO or H<sub>2</sub>. These elements neither taught nor suggested by either Ducrocq (PG'159) or Meyers (US'122).

In response: the Examiner disagrees with the Applicants' argument because as pointed out in the previous office actions marked 11/24/2008 and 3/5/2008, Ducrocq (PG'159) teaches a method for treating aluminum material comprising that CO or H<sub>2</sub> concentration is regulated at a value of between about 3vol% and about 10vol% (Fig. 6a and 6b of PG'159) and a volumetric ratio of oxygen to fuel is maintained at about 1 (Paragraph [0144] of PG'159). PG'159 in view of US'122 holding the flow rate of the oxidizer stream constant while varying the flow rate of the fuel as taught by US'122 in order to ensure that oxygen and fuel are completely burned and to allow the burner to operate in an optimized condition. Regarding the limitation of setting setpoints C2 and C1 by regulating at least one of carbon monoxide and hydrogen in the instant claim 13 and claim 27, setpoints C1 and C2 are recognized as result-effective variables in term of aluminum melting which is evidenced by PG'159 (Fig. 6a-6c, page 6, paragraph [0139]-[0144] of PG'159). It would have been obvious to one of ordinary skill in the art at the time the invention was made to select proper setpoints C1 and C2 in the process of PG'159 in view of US'122 in order to obtain the desired aluminum melting result as demonstrated in PG'159. MPEP 2144.05 II. The detail discussion and motivation for combining the PG'159 and US'122 can refer to the previous office actions marked 11/24/2008 and 3/5/2008.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jie Yang whose telephone number is 571-2701884. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-2721244.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.